

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-7 (Canceled).

Claim 8 (New): An induction furnace comprising:
a side wall comprising vertical side-by-side segments,
wherein the segments are coated with ceramic at least on inner faces and side faces,
and at least sharp edges joining said inner faces to said side faces are rounded.

Claim 9 (New): An induction furnace as in claim 8, further comprising a hearth on
which the side wall is positioned, wherein the hearth is provided with cooling boxes coated
with ceramic at least on upper faces, and at least sharp edges delimiting said upper faces are
rounded.

Claim 10 (New): A crucible for an induction furnace as in claim 8, wherein the
segments are further coated with ceramic on outer faces.

Claim 11 (New): An induction furnace as in claim 9, wherein the cooling boxes are
further coated with ceramic on lower faces and side faces.

Claim 12 (New): An induction furnace as in claim 8, wherein the segments comprise
lugs for assembly with an upper flange, and the upper flange is coated with ceramic at least
on one face touching the segments.

Claim 13 (New): An induction furnace as in claim 9, wherein the faces of the segments and cooling boxes that are coated with ceramic are joined together by rounded or chamfered edges.

Claim 14 (New): An induction furnace as in claim 8, wherein the ceramic is chosen from among mullite, alumina, cordierite, zircon, zirconia, and zirconate.